

the work is such that it must be located in more than one direction and clamped at several points. If the necessary clamps could be positively operated by a single lever, the greatest possible speed would be obtained, but this ideal condition may not be practicable, owing to the fact that the holding position of each clamp is likely to vary with the size of the work, thus making any combined positive movement of the clamps ineffectual. The clamps may be released by a single lever, but when holding the work their position is fixed by the work itself, and this condition, coupled with variations in the size of the work,

*Machinery*

Fig. 20. Work to be drilled in Jig shown in Fig. 19

makes the operation of the clamps by a single lever a difficult matter.

If it were always possible to reverse this condition, making each clamp independent of the others in its closing movement and thus compensating for varying sizes of work, a single lever might be arranged to release all the clamps at once. This desirable result has been accomplished in the jig shown in Fig. 19 by employing spring pressure to close the locating and holding mechanisms. The position of the work is fixed in two directions, and the work is clamped at two points by a single movement of the operating lever to the right, while moving this lever to the left releases the work from the clamping and locating devices. The work (which is shown on a reduced scale in Fig. 20) lies on three hardened steel blocks *A*, and is located behind pins *B* mounted in these blocks and to the left of the pin *C* in the base of the jig.

The block *D* forms a seat for the cover-plate and the latch which holds the cover-plate down is pivoted in this block. The latch is held down by a spring plunger. The bellcrank lever *E*,